

REMARKS

Claims 1-24 are pending in this application. Claims 1-24 are subject to restriction.

The Examiner required restriction under 35 U.S.C. §121 to one of the following groups of claims:

Group I: Claims 1-4 and 13-16, drawn to transmission, classified in class 375, subclass 295; drawn to figure 5; or

Group II: Claims 5-12 and 17-24, drawn to receiving, classified in class 375, subclass 316; drawn to figure 6.

In response, Applicant provisionally elects, without prejudice and with traverse, Group II, containing Claims 5-12 and 17-24, for examination on the merits.

The restriction requirement of Group I and Group II is respectfully traversed. Applicant traverses the restriction because it is believed that both groups of claims identified in the outstanding Office Action are closely related and, therefore, would require common areas of search and consideration. Applicant submits that the pending claims of the present invention define a method and apparatus for transmission and reception of encoded symbols with a differential space-time block code.

More particularly, all pending claims of the present invention share the same technical aspect, since in Group I (Claims 1-4 and 13-16), the transmission apparatus receives a block of information symbols, generates normalized symbols by multiplying the information symbols by a block of previously transmitted transmission symbols and then dividing the multiplication result by a normalization value that is determined as a size of the previously transmitted transmission symbols, forms the normalized symbols into a plurality of combinations to transmit the normalized symbols once at each time period and transmits the combination via the transmission antennas for a plurality of corresponding symbol durations.

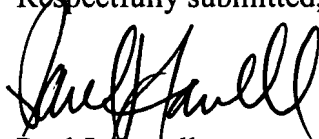
Further, in Group II (Claims 5-12 and 17-24) the reception apparatus collects a signal received at a reception antenna from a plurality of transmission antennas for a block duration, calculates a substitution signal by multiplying the received signal by a signal received for a previous block duration, estimates channel power for a channel from the plurality of transmission antennas to the reception antenna, normalizes the estimated channel power with a normalization value that is determined as a size of previously received symbols and calculates information symbols by dividing the substitution signal by the normalized channel power.

As mentioned above, the transmission apparatus transmits a signal by a normalization value that is determined as a size of the previously transmitted transmission symbols and the reception apparatus receives a signal by a normalization value that is determined as a size of previously received symbols. The transmission apparatus and the reception apparatus perform the counterpart operations of transmitting/receiving the signal by using the normalization value that is determined as a size of previously transmitted/received symbols.

Accordingly, Applicant respectfully proposes that Groups I and II above can be classified into one group. No benefit is derived from maintaining the restriction requirement and withdrawal of the Restriction Requirement is respectfully requested. As the M.P.E.P states, separate classification is not sufficient if the entire case can be searched at once without serious burden, and it is respectfully submitted that withdrawal of the Restriction Requirement is warranted. Applicant reserves the right to file a divisional application to the non-elected claims of Group I, that is, Claims 1-4 and 13-16.

Accordingly, all of the claims pending in the Application, namely, Claims 1-18, are believed to be in condition for allowance. Should the Examiner have any questions, he is requested to contact the undersigned at the number indicated below. Early and favorable consideration of the claims is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Paul J. Farrell", written over a horizontal line.

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